

<b>PRE-APPEAL BRIEF REQUEST FOR REVIEW</b>		Docket Number: 08215-540001
	Application Number 10/802,409	Filed March 16, 2004
	First Named Inventor Paul N. Stoving et al.	
	Art Unit 2832	Examiner Marina Fishman
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a Notice of Appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s).          Note: No more than five (5) pages may be provided.</p> <p>I am the</p> <p><input type="checkbox"/> applicant/inventor. _____          /Diana DiBerardino/</p> <p><input type="checkbox"/> assignee of record of the entire interest.          See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96) _____          Signature</p> <p><input checked="" type="checkbox"/> attorney or agent of record <u>45,653</u>          (Reg. No.) _____  <u>(202) 783-5070</u>          Telephone number</p> <p><input type="checkbox"/> attorney or agent acting under 37 CFR 1.34.          Registration number if acting under 37 CFR 1.34 _____  <u>March 14, 2007</u>          Date</p> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below.</p> <p><input checked="" type="checkbox"/> Total of 6 pages are submitted.</p>		

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Paul N. Stoving et al.	Art Unit :	2832
Serial No. :	10/802,409	Examiner :	Marina Fishman
Filed :	March 16, 2004	Conf. No. :	3843
Title :	VACUUM ENCAPSULATION HAVING AN EMPTY CHAMBER		

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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Pursuant to United States Patent and Trademark Office OG Notices: 12 July 2005, New Pre-Appeal Brief Conference Pilot Program, a request for a review of identified matters on appeal is hereby submitted with the Notice of Appeal. Review of these identified matters by a panel of examiners is requested because the rejections of record are clearly not proper and are without basis, in view of a clear legal or factual deficiency in the rejections. All rights to address additional matters on appeal in any subsequent appeal brief are hereby reserved.

Claims 1-5, 8, 18, 22, and 24-28 are pending, with claims 1 and 18 being independent. Claims 6, 7, 9-17, 19-21, and 23 have been cancelled. Claims 1-5, 8, 22, 27, and 28 have been allowed. Claim 25 has been rejected under 35 U.S.C. § 112, second paragraph. Claims 18 and 26 have been rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 3,849,617 (Pflanz). Claims 24 and 25 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Pflanz in view of U.S. Patent No. 4,168,414 (Kumbera).

Applicant respectfully disagrees with, and hereby asks the panel to review and reverse, these rejections. First, the rejection under 35 U.S.C. § 112, second paragraph is improper. Second, neither Kumbera, Pflanz, nor any combination of these two references, describes or suggests at least a tube provided through the seal and including cured liquefied encapsulation material to block the passage of air between an exterior of a seal and a cavity, as recited in claim 18.

### Discussion

Independent claim 18 recites:

A vacuum switching device comprising:

- a vacuum interrupter;
- a hollow housing adjacent to the vacuum interrupter;
- a seal provided around the vacuum interrupter and the hollow housing, the seal defining an air-filled cavity within the hollow housing; and
- a tube provided through the seal and including cured liquefied encapsulation material to block the passage of air between an exterior of the seal and the cavity.

Dependent claim 24 recites:

The vacuum switching device of claim 18 wherein:

- the tube is disposed such that a first end of the tube accesses the cavity and a second end of the tube accesses an exterior of the seal; and
- the second end of the tube is open to an encapsulation material provided around the vacuum interrupter, the hollow housing, and the seal.

Dependent claim 25 recites:

The vacuum switching device of claim 24 wherein the encapsulation material includes a pre-filled, hot-curing, two-component epoxy resin.

### Rejection of claim 25 under 35 U.S.C. § 112, second paragraph

Claim 25 has been rejected under 35 U.S.C. § 112, second paragraph as being indefinite. The Examiner indicates that “the Applicant should clarify to what encapsulating material is referred to in Claim 25, is it to an encapsulating material introduced in Claim 18 or in Claim 24.” See final Office action of Nov. 14, 2006 at page 2, lines 13-15. As indicated above, claim 18 recites “a tube provided through the seal and including cured liquefied encapsulation material.” In contrast, claim 24, which depends from claim 18, recites that “the tube is open to an encapsulation material provided around the vacuum interrupter, the hollow housing, and the seal.” Claim 25, which depends from claim 24, recites “the encapsulation material.” As claim 25 does not refer to the “cured liquefied encapsulation material” recited in claim 18, but rather refers simply to “the encapsulation material” recited in claim 24, claim 25 is not indefinite.

Moreover, to advance prosecution, applicant submitted an after-final amendment to amend claims 24 and 25 to recite a “second encapsulation material.” See response of Jan. 16,

2007 at page 3. This amendment was believed to be proper under 37 CFR §1.116 and MPEP §714.12 because entry of the amendment would have placed the claims in better condition for appeal and would have removed issues for appeal. However, the amendment was not entered because “[i]ntroduction of a second encapsulation material (claims 24 and 25) without introduction of a first encapsulation material makes claims vague and indefinite.” See Advisory Action of Feb. 9, 2007.

Applicant respectfully disagrees with the refusal to enter the clarifying amendment. Claims that define the patentable subject matter with a reasonable degree of particularity and distinctness are not indefinite under 35 U.S.C. § 112, second paragraph. See MPEP § 2173.02. Moreover, “some latitude in the manner of expression and the aptness of terms should be permitted.” Id. As such, introduction of a “second encapsulation material” without a “first encapsulation material” does not make the claim indefinite. Rather, it is clear that the “second encapsulation material” introduced in claims 24 and 25 is distinct from the “cured liquefied encapsulation material” introduced in claim 18. For at least these reasons, applicant respectfully requests reversal of this rejection.

Rejection of claims 18 and 26 as anticipated by Pflanz

Claims 18 and 26 have been rejected under 35 U.S.C. § 102 as being anticipated by Pflanz. Applicant requests reversal of this rejection because Pflanz does not describe or suggest at least a tube provided through a seal and including cured liquefied encapsulation material to block the passage of air between an exterior of the seal and a cavity, as recited in claim 18. The Examiner points to Pflanz’ tube 24 to show a tube provided through a seal. However, Pflanz does not disclose that the tube 24 includes cured liquefied encapsulation material to block the passage of air between an exterior of the seal and a cavity, as recited in claim 18. Rather, Pflanz merely discloses that the tube 24 is used to remove air from a space 23 within a vacuum interrupter 10 “to the extent desired” and then the tube 24 is subsequently sealed by being brazed. See Pflanz at col. 2, lines 40-66 and Fig. 1. As is evident from this description and from the design in Fig. 1 of Pflanz, the tube 24 is not filled with cured liquefied encapsulation material, nor any other material, at any time to block air between the space 23 and an exterior of

the interrupter 10. The tube 24 is merely sealed to itself by the brazing of the material of the tube.

Referring to the tube 24, the Examiner asserts that "the tube is sealed by brazing material that works as an encapsulation material." See final Office Action of Nov. 14, 2006 at page 5, lines 6-7. Applicant respectfully disagrees. Pflanz indicates that the tube 24 is positioned in an opening formed in the wall member 14, and that the tube 24 "is brazed therein." See Pflanz at col. 2, lines 61-64. However, there is no indication that the tube is sealed with a brazing material, or any other material other than the tube itself, much less that the tube 24 includes a material that is a cured liquefied encapsulation material.

For at least these reasons, claim 18 is allowable over Pflanz. Claim 26 depends from claim 18 and is allowable for at least the reasons that claim 18 is allowable.

#### Rejection of claims 24 and 25 over Pflanz in view of Kumbera

Claims 24 and 25 have been rejected under 35 U.S.C. § 103(a) as being obvious over Pflanz in view of Kumbera. Applicant requests reversal of this rejection because any possible combination of Pflanz and Kumbera would still fail to describe or suggest a tube provided through a seal and including cured liquefied encapsulation material to block the passage of air between an exterior of the seal and a cavity, as recited in independent claim 18. Thus, claims 24 and 25 are allowable over any proper combination of Pflanz and Kumbera at least for their dependency on claim 18. Additionally, Kumbera and Pflanz, alone or in combination, also fail to describe or suggest "a second end of the tube is open to an encapsulation material provided around the vacuum interrupter, the hollow housing, and the seal," as recited in claim 24.

The Examiner indicates that Pflanz does not describe or suggest "an encapsulation material provided around the vacuum interrupter, the hollow housing and the seal." See final Office action of Nov. 14, 2006 at page 4, lines 2-3. For this feature, the Examiner points to element 23 shown in Figure 3 of Kumbera. Figure 3 of Kumbera shows an interrupter unit 3 that includes a vacuum enclosure 19 with contact end connector cap units 20 and 21, which are cast and encapsulated within an solid insulation wall 23 to form an integrated self-supporting structure. See Kumbera at col. 5, lines 58-63 and Fig. 3. Kumbera also shows a guide tube 47

that is disposed in the wall 23. See Kumbera at col. 7, lines 11-14 and Fig. 3. The wall 23 is formed to have a planar surface 52 that is attached to a side wall 52 of a submersible housing 54. See Kumbera at col. 8, lines 4-10. The housing 54 includes an opening 55 through which the guide tube 47 extends. See Kumbera at col. 8, lines 11-13.

Thus, one end of the guide tube 47 opens beyond the wall 23. Even if the wall 23 is assumed to be an encapsulation material provided around the vacuum interrupter, the hollow housing, and the seal, neither end of the guide tube 47 opens to the wall 23. As such, Kumbera also fails to describe or suggest "a second end of the tube is open to an encapsulation material provided around the vacuum interrupter, the hollow housing, and the seal," as recited in claim 24.

In conclusion, applicant requests that the rejections of claims 18 and 24-26 be reversed and that the amendment to claims 24 and 25 be entered.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: March 14, 2007

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